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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/979,546	11/20/2001	Yasuaki Itoh	46342/56686	6949
21874	7590	03/03/2004	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			UNGAR, SUSAN NMN	
			ART UNIT	PAPER NUMBER
			1642	

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 09/979,546	<b>Applicant(s)</b> ITOH ET AL.	
	<b>Examiner</b> Susan Ungar	<b>Art Unit</b> 1642	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) 1-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1642

1. Claims 1-8 are pending in the application and are currently under prosecution.
2. This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13:

Group 1, claims 1, 2, 4, 5 and 8 drawn to SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof, a method of manufacturing SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof, a method of screening a compound that promotes the activities of SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof.

Group 2, claims 1, 5 and 8 drawn to SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 3, claim 2, drawn to a method of manufacturing SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 4, claim 3, drawn to an antibody against SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof.

Group 5, claim 3, drawn to an antibody against SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 6, claim 4, drawn to a method of screening a compound that promotes the activities of SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 7, claim 4, drawn to a method of screening a compound that inhibits the activities of SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof.

Art Unit: 1642

Group 8, claim 4, drawn to a method of screening a compound that inhibits the activities of SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 9, claims 6-7, drawn to a compound that promotes the activities of SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof.

Group 10, claims 6-7, drawn to a compound that promotes the activities of SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

Group 11, claims 6-7, drawn to a compound that inhibits the activities of SEQ ID NO:1 or a sequence substantially the same as SEQ ID NO:1 or a salt thereof.

Group 12, claims 6-7, drawn to a compound that inhibits the activities of SEQ ID NO:15 or a sequence substantially the same as SEQ ID NO:15 or a salt thereof.

3. The inventions are distinct, each from the other because of the following reasons:

A national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. When claims to different categories are present in the application, the claims will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (1) A product and a process specially adapted for the manufacture of said product; or (2) A product and a process of use of said product; or (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or (4) A process and an apparatus or means

Art Unit: 1642

specifically designed for carrying out the said process; or (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process. If multiple products, processes of manufacture or uses are claimed, the first invention of the category first mentioned in the claims of the application will be considered as the main invention in the claims, see PCT article 17(3) (a) and 1.476 (d), 37 C.F.R. 1.475(b) and (d). Group I will be the main invention. After that, all other products and methods will be broken out as separate groups (see 37 CFR 1.475(d).)

Group 1, claims 1, 2, 5 and 8 drawn to SEQ ID NO:1 and a method of manufacturing SEQ ID NO:1 and a method of using SEQ ID NO:1.

Groups 2-12 are drawn to additional products and additional methods which are not so linked to Group 1 and to form a single general inventive concept.

Because these inventions are distinct for the reasons given above restriction for examination purposes as indicated is proper.

In view of the above, Group 1 is considered the main invention. After that, all other products and methods have been broken out as separate groups (see 37 CAR 1.475(d).).

4. Because these inventions are distinct for the reasons given above restriction for examination purposes as indicated is proper.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R.

§ 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Art Unit: 1642

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

7. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Ungar, PhD whose telephone number is (571) 272-0837. The examiner can normally be reached on Monday through Friday from 7:30am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvette Eyler, can be reached at 571-272-0871. The fax phone number for this Art Unit is (703) 305-7230.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Susan Ungar  
Primary Patent Examiner  
March 1, 2004

